





(43) International Publication Date 14 October 2004 (14.10.2004)

PCT

(10) International Publication Number WO 2004/087145 A3

- (51) International Patent Classification7: A61K 31/4375, 31/4709, 31/47, 31/496, 31/55, 31/536, 31/5415, C07D 471/04, 401/14, 405/14, 403/14
- (21) International Application Number:

PCT/US2004/009371

- (22) International Filing Date: 26 March 2004 (26.03.2004)
- (25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 60/458.147

27 March 2003 (27.03.2003) US

- (71) Applicant (for all designated States except US): GLAXO GROUP LIMITED [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB06 0NN (GB).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): HENNESSY, Alan, J. [IE/GB]; New Frontiers Science Park South, Third Avenue, Harlow, Essex CM19 5AW (GB). MILLER, William, Henry [US/US]; 1250 South Collegeville Road, Collegeville, PA 19426 (US). SEEFELD, Mark, Andrew [US/US]; 1250 South Collegeville Road, Collegeville, PA 19426 (US).
- (74) Agents: HSU, Grace, C. et al.; GlaxoSmithKline, Corporate Intellectual Property, UW2220, 709 Swedeland Road, P.O. Box 1539, King of Prussia, PA 19406-0939 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE; ES, FI, FR,

GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD. TG)
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, Cl, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)
- of inventorship (Rule 4.17(iv)) for US only

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments
- (88) Date of publication of the international search report:
 4 November 2004

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANTIBACTERIAL AGENTS

(57) Abstract: Quinoline and naphthyridine derivatives useful in the treatment of bacterial infections in mammals, particularly humans.



•

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/09371

IPC(7) A61K 31/4375, 31/4709, 31/47, 31/496, 31/55, 31/536, 31/5415; COTD 471/04, 401/14, 405/14, 405/14 US CL 51/4300, 302, 311,314, 218, 212.08, 253.06, 224.2; 540/575, 397; 544/48, 52, 105, 365; 546/115, 122, 170, 176 According to International Patent Classification (IPC) or to both national classification and IPC Minimum documentation searched (classification system followed by classification and IPC Minimum documentation searched (classification system followed by classification symbols) U.S.: 514/300, 302, 311,314, 218, 212.08, 253.06, 224.2; 540/575,397; 344/48,52,105,363; 546/115,122,170,176 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched classification of the search of th	A. CLA	ASSIFICATION OF SUBJECT MATTER	L	101/0304/093/		
According to International Patent Classification (IPC) or to both mational classification and IPC FIELDS SEACHED Minimum documentation searched (classification system followed by classification symbols) U.S.: 514/300, 302,311,314, 218, 212.08, 253.06,224.2; 540/575,597; 544/48,52,105,363; 546/115,122,170,176 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched searched other than been minimum documentation to the extent that such documents are included in the fields searched for the fields searched of the fields of the fields searched of the fields of the fields searched for the fields of the fields searched for the fields of the fields searched for the fields of the fields searched for the fields of		: A61K 31/4375, 31/4709, 31/47, 31/496 31	/55 31/536 31/5415· CC	770 471/04 401/		
B. FIELDS SEARCHED U.S.: 514/300, 302, 311, 314, 218, 212.08, 253.06, 224.2; 540/575, 597; 544/48, 32, 105.363; 546/115, 122, 170, 176 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched classification symbols) Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched classification in searched other than minimum documentation to the extent that such documents are included in the fields searched classification in the search of		· 317/300, 302,311,314, 216, 212,08, 251,08	1,7,4 7° 5417575 507° 547	1/AR 50 INS 262.	14, 405/14, 403/14	
Minimum documentation searched (classification system followed by classification symbols) U.S.: 514/300, 302,311,314, 218, 212.08, 253.06,224.2; 540/575,397; 544/48,52,105,363; 546/115,122,170,176 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched in the fields searched other than been consulted during the international search (name of data base and, where practicable, search terms used) Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citiation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,290 A (LEONARDI et al) 06 June 2002 (80.06,2000), columns 2-3. A WO 000/56712 A1 (SMITHLINE BEECHAM P.L. C.) 28 September 2000 (28.09,2000), pages 1-2; page 17, compound 647. A WO 02/056882 A1 (SMITHKLINE BEECHAM P.L. C.) 25 July 2002 (25.07,2002), see curier document, especially the examples. Proceedings of particular relevance or patent published on or sfer the international fling date or priority decided to involve an involve of particular relevance carrier application or priority estation or other special reson (as a practical relevance) and disclosure, use, scabilistic or other measurement and the paper of the state of another cluston or other special reson (as a practical relevance) and disclosure, use, scabilistic or other measurement particular relevance; the chlaimed investor to exceed the considered to involve an investment and above accument in state of another cluston or other special reson (as a professor of the paper of the state of the considered and the paper of the state of the considered and the paper of the state of another cluston or other special reson (as a professor of the paper of the state of the considered of the considered to involve an investment of particular relevance; the chlaimed investment to particular relevance; the chlaimed	According to international Patent Classification (IPC) or to both national classification and IPC					
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al.) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 00/2056812 A (SMITHLINE BEECHAM PLC.) 25 July 2002 (25.07.2002), see 1-12 Interded comment aftering the general state of the art which is not considered to be of particular relevance.	B. FIEL	DS SEARCHED				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920. A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 AI (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 00/20/56882 AI (SMITHLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see 1-12 Interdocument disping the general state of the art which is not considered to be of particular relevance. **Comment disping the general state of the art which is not considered to be cardier application or patent published on or after the international filing date or pricity care date for including the general state of the art which is not considered to be a related to establish the poblication date of another citation or other special reason (as specifics) **Comments disping to an oral discissure, use, exhibition or other means the pricity date claimed **Comments of particular relevance, the claimed investion contobe considered to involve an Investible stap when the document is mirrority date claimed **Comments of particular relevance, the claimed investion cannot be considered to involve an Investible stap when the document in investible as the about considered to involve an investible stap when the document in investible as the about the comment of the same patent stand alone considered to involve an investible stap when the document in investible as the about the comment of the same patent stand alone considered to involve an investible stap when the document in investible as the about an investible stap when the	Minimum d	ocumentation searched (classification system follow	ed by classification symb	ols)		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAS ONLINE C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A DOCUMENTS CONSIDERED TO BE RELEVANT A WO 00/56712 A1 (SMITHKLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound £47. A WO 00/56712 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. Purther document selfching the general state of the art which is not considered to be of particular relevance of particular rele	U.S. : :	514/300, 302,311,314, 218, 212.08, 253.06,224.2;	540/575,597; 544/48,52,	105,363; 546/11	5.122.170.176	
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAS ONLINE C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM P.L.) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. The comment of thing the general state of the art which is not considered to be of particular relevance in the deciment of particular relevance in claims or other specified of the comment of particular relevance in claims of the comment of the comment of the comment of particular relevance in claims of the comment of the comment of particular relevance in claims and the considered to involve an invention report and the comment of particular relevance in claims and the considered to involve an invention report and the comment of particular relevance in the considered to involve an invention report and the comment of particular relevance in the considered to involve an invention report and the comment of the summer parent family The comment of particular relevance in the considered to involve an invention report and the comment of particular relevance in the considered to involve an invention report and the comment of particular relevance in the considered to involve an invention report and the comment of particular relevance in the considered to involve an invention report and the considered to involve an invention report and the consid					-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) CAS ONLINE C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM P.L.C.) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. WO 02/050882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. The document draining the percent auts of the art which is not considered to be of particular relevance. The property of the property claim(s) or which is cited to examiliate the principle or these the claimed inventor is claimed to examiliate the property of the cuments which may throw dashes on priority claim(s) or which is cited to examiliate the priority date and not a considered to linky and a visual to a considered to linky and a visual to a considered to linky and a visual to the art visual to considered to linky and a visual to the priority date claimed. The document referring to an oral discinute, use, exhibition or other nears to examiliate the priority date claimed in visual relevance to the distinct a visual to a decimal and priority date claimed in visual to a considered to linky and a visual to a decimal to a visual to a decimal constant of particular relevance to claimed in visual to a vis	Documentat	ion searched other than minimum documentation to	the extent that much down			
C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM P.L.) 28 September 2000 (28.09.2000). pages 1-2; page 17, compound E47. A WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see 1-12 Purther documents are listed in the continuation of Box C. Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance of particular relevance of particular relevance of a state of the art which are priority chain(s) or which is cited to specification due of another citation or other means document which may throw doubts on priority chain(s) or which is cited to specific to publication due of another citation or other means of document which may throw doubts on priority chain(s) or which is cited to specific to publication due of another citation or other means of document published prior to the international filing date but later than the priority due claimed. Community of particular relevance, the claimed invention cannot be considered to involve an inventive step when the document is even to the considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the docume			are extern diat such docu	ments are include	ed in the fields searched	
C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. 1-12 WO 00/56712 A1 (SMITHLINE BEECHAM P.L.) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see 1-12 Purther documents, especially the examples. Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance. the claimed international filing date of particular relevance to fining the general state of another citation or other greeoil reaction (as specified) or which is cited to expectified to the publication due of another citation or other greeoil reaction (as specified) or which may throw doubts on priority claim(s) or which is cited to expectified to the publication due of another citation or other greeoil reaction (as specified) or which may throw doubts on priority claim(s) or which is cited to expect the publication due of another citation or other greeoil reaction (as specified) or which may throw doubts on priority claim(s) or which is cited to expect a specified or the complete or the priority date claimed. Comments which may throw doubts on priority claim(s) or which is cited to expect the priority date claimed. To document spublished prior to the international filing date but later than the priority date claimed. To document spublished prior to the international search Comments for patents. P.O. Box 1450 Authorized of filicer Evelyn Huang Telephone No. (571) 272-1600			•			
C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6.071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. 1-12 WO 00/56712 A1 (SMITHLINE BEECHAM P.L.C.) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see 1-12 Purther documents are listed in the continuation of Box C. Special categories of clad documents: A document defining the general state of the art which is not considered to be of particular relevance of particular relevance of particular relevance of another citation or other special read of another citation or other special read or specified. C document which may throw doubts on priority claim(5) or which is cited to specified. C document which may throw doubts on priority claim(5) or which is cited to specified. C document which may throw doubts on priority claim(5) or which is cited to specified. C document which may throw doubts on priority claim(5) or which is cited to specified. C document which may throw doubts on priority claim(5) or which is cited to specified. C document specified. C document referring to an oral disclosure, use, catabilities or other means the document is later alone. C document published prior to the international filing date but later than the priority dee claimed. A document published prior to the international search A document published prior to the international search and the document is priority dee claimed. Date of the actual completion of the international search and the document is the document is to involve an inventive step when the document is priority dee claimed. A document and priority are claimed invention cannot be considered to involve an inventive step when the document is becaused to involve an inventive step when the document is becaused to involve an inventive step when the document is becaused to involve an inventive step wh	Electronic d					
C. DOCUMENTS CONSIDERED TO BE RELEVANT Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. 1-12 A WO 0056712 A1 (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see 1-12 Purther document, especially the examples. See patent family annex. See patent family annex. See patent family annex. I late document with the application of the fining the general state of the art which is not considered to be of particular relevance. Category * Citation of documents of the fining the general state of the art which is cited to expecificably the publication due of another citation or enter special reaction (as specified). Commissioner for patents which may throw doubts on priority claim(s) or which is cited to expecificably the publication due of another citation or enter special reaction (as specified). Commissioner for priority date claimed Date of the actual completion of the international search priority date claimed Date of mailing of the international search report 21 SEP 2004 Authorized of fficer Evelyn Huang A. Adubtat A. Authorized of fficer Evelyn Huang T. Event to claim to claim to claim to claim to constitute the priority claim (c) or which is cited to expect the comment in such as alons: "A" **Commissioner for Patents P.O. Box 1450 Alexandria, Vignia 2231-1450 Authorized of fficer Evelyn Huang T. Authorized of fficer Telephone No. (571) 272-1600	CAS ONLIN	ata base consulted during the international search (r	ame of data base and, wh	iere practicable, :	search terms used)	
Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 02/505828 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. Purther documents are listed in the continuation of Box C. Special categories of cited documents: Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance of particular relevance of particular relevance of particular relevance and the specified of the continuation of other special reason (as specified). Commissioner for patent published on or after the international fling date of considered in own of the considered to involve an invention cannot be considered in involve an invention cannot be considered to involve an invention cannot be considered on involve an invention cannot be considered to involve an invention cannot be considered on involve an invention and the commission of particular relevance, the claimed of considered on involve an invention cannot be considered on involve an invention cannot be considered on involve an invention and the commission of particular relevance, the publication date of another claimed with one or more other such documents, such combination being obvious to a person date to involve an invention cannot be considered novel or cannot be considered in invention in considered in invention cannot be considered in invention in co						
Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No. A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. A WO 02/505828 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. Purther documents are listed in the continuation of Box C. Special categories of cited document: **Toda document defining the general state of the art which is not considered to be of particular relevance of particular relevance earlier application or patent published on or after the international fling date compared to particular relevance earlier application or patent published on or after the international fling date compared to particular relevance to claimed of the continuation of other special reason (as apseiffled) or document referring to an oral discinsure, use, exhibition or other special reason (as apseiffled) or document referring to an oral discinsure, use, exhibition or other special reason (as apseiffled) or which is cited to establish the publication date of another clustion or other special reason (as apseiffled) or document published apprior to the international fling date but later than the printing date claimed **Y* document referring to an oral discinsure, use, exhibition or other means document published prior to the international fling date but later than the printing date for claimed claimed with one or more other such documents, such combination being obvious to a person date to involve an insenting and the foundation of involve an invention cannot be considered novel or cannot the considered to involve an invention and the comments, such combination being obvious to a person date to involve an invention and the comments, such combination being obvious to a person date to involve an invention and the comments, such combination being obvious to a person date to invol	-					
A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3. A WO 00/56712 A1 (SMITHLINE BEECHAM PLC) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound E47. WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. Purther documents are listed in the continuation of Box C. Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance of par						
A WO 00/56712 A1 (SMITHLINE BEECHAM P.L.C.) 28 September 2000 (28.09.2000), pages 1-2; page 17, compound £47. WO 02/056882 A1 (SMITHKLINE BEECHAM P.L.C.) 25 July 2002 (25.07.2002), see entire document, especially the examples. Purther documents are listed in the continuation of Box C.		Citation of document, with indication, where	appropriate, of the releva	int passages	Relevant to claim No.	
Purther documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance; e carlier application or patent published on or after the international filing date to establish the publication date of another citation or other special reason (as especialized) O* document referring to an oral disclosure, use, exhibition or other means document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date be the document is taken alone and document published prior to the international filing date be considered to involve an "Y" addition or other special reason (as especialized) O* document published prior to the international filing date but later than the priority date claimed O* document published prior to the international search Alougust 2004 (13.08.2004) Authorized officer Evelyn Huang Fully 2002 (25.07.2002), see 1-12 See patent family annex. **T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the priority date claimed invention cannot be considered novel or cannot be considered to involve an "Y" obcument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone document in transmitter step when the document be considered to involve an priority date claimed of the same patent family **C** document published prior to the international search 24 SEP 2004 Authorized officer Evelyn Huang Full Step 2004 Authorized officer Evelyn Huang Full Step 2004 Telephone No. (571) 272-1600	Α	A US 6,071,920 A (LEONARDI et al) 06 June 2002 (06.06.2000), columns 2-3.				
Purther documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: "T" A" document defining the general state of the art which is not considered to be of particular relevance of particular relevance "E" active application or patent published on or after the international filing date or priority cate claimed in the publication date of another citation or other special reason (as specified) "O document referring to an oral disclosure, use, exhibition or other means of countent published prior to the international filing date but later than the priority date claimed with the application are of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken along the considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document is considered to involve an inventive step when the document seemed with one or more for such document, such combination being obvious to a person skilled in the art document means of the actual completion of the international search 3 August 2004 (13.08.2004) Authorized officer Evelyn Huang Telephone No. (571) 272-1600	Δ					
Further documents are listed in the continuation of Box C. See patent family annex. Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance; the claimed in vertical to understand the publication or patent published on or after the international filing date of particular relevance; the claimed in vertical to carabilith the publication date of another clustion or other special reason (as specified) document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another clustion or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document referring to an oral disclosure, use, exhibition or other means document or published prior to the international filing date but later than the priority date claimed document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is accument in staten alone "A" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is being dovious to a person skilled in the art of the same patent family document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is being dovious to a person skilled in the art of the same patent family document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is being dovious to a person skilled in the art of the same patent family document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document of the same patent family document of particular relevance; the claimed invention cannot be considered now to a person skilled in the art of the same patent family document of particular relevance; the claimed invention cannot be considered now to a person skill	Λ.	Pages 1-2: page 17 compound E47				
Further documents are listed in the continuation of Box C. Special categories of cited documents: A document defining the general state of the art which is not considered to be of particular relevance of particular relevance, the claimed invention cannot be considered to be considered to broad an an another document of particular relevance; the claimed invention cannot be considered to involve an invention and the comments, such combination being obvious to a person skilled in the art document such cannot be considered to involve an invention cannot be considered to involve an	Α	WO 02/056882 A1 (SMITHKLINE REECHAM P.L.C.) 25 July 2009 (25.07.2009)				
Further documents are listed in the continuation of Box C. Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance; the claimed invention cannot be considered now loc cannot be considered to make the publication of particular relevance; the claimed invention cannot be considered now loc cannot be considered to involve an invention cannot be considered to which the operation cannot be con		entire document, especially the examples.				
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** earlier application or patent published on or after the international filing date L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O** document referring to an oral disclosure, use, exhibition or other means O** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is alone and invention cannot be considered to involve an inventive step when the document is alone and invention and invention and invention and invention and invention cannot be considered to involve an inventive step when the follou				_		
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** carlier application or patent published on or after the international filing date C** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) C** document referring to an oral disclosure, use, exhibition or other means C** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document step when the document is cannot be considered to involve an inventive step when					1	
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" earlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oacument published prior to the international search A" document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the formation of the cannot be considered		•				
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** earlier application or patent published on or after the international filing date L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O** document referring to an oral disclosure, use, exhibition or other means O** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is alone and invention cannot be considered to involve an inventive step when the document is alone and invention and invention and invention and invention and invention cannot be considered to involve an inventive step when the follou						
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** carlier application or patent published on or after the international filing date C** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) C** document referring to an oral disclosure, use, exhibition or other means C** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document step when the document is cannot be considered to involve an inventive step when						
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" carlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search A" aday state of the actual completion of the international search A" aday state of the actual completion of the international search A" and the priority date claimed A" and the priority date of mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306	*					
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" carlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search A" aday state of the actual completion of the international search A" aday state of the actual completion of the international search A" and the priority date claimed A" and the priority date of mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306				ĺ		
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** earlier application or patent published on or after the international filing date L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O** document referring to an oral disclosure, use, exhibition or other means O** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is alone and invention cannot be considered to involve an inventive step when the document is alone and invention and invention and invention and invention and invention cannot be considered to involve an inventive step when the follou			•	ļ		
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** earlier application or patent published on or after the international filing date L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O** document referring to an oral disclosure, use, exhibition or other means O** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is alone and invention cannot be considered to involve an inventive step when the document is alone and invention and invention and invention and invention and invention cannot be considered to involve an inventive step when the follou						
Special categories of cited documents: A* document defining the general state of the art which is not considered to be of particular relevance E** earlier application or patent published on or after the international filing date L** document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O** document referring to an oral disclosure, use, exhibition or other means O** document published prior to the international filing date but later than the priority date claimed A** document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cambined with one or more other such documents, such combination being obvious to a person skilled in the art A** document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone Accument of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is alone and invention cannot be considered to involve an inventive step when the document is alone and invention and invention and invention and invention and invention cannot be considered to involve an inventive step when the follou						
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" earlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oacument published prior to the international search A" document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the formation of the cannot be considered						
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" earlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search A august 2004 (13.08.2004) A ame and mailing address of the ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306						
Special categories of cited documents: A" document defining the general state of the art which is not considered to be of particular relevance E" earlier application or patent published on or after the international filing date L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search A august 2004 (13.08.2004) A ame and mailing address of the ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306	Further	documents are listed in the continuation of Box C				
A document defining the general state of the art which is not considered to be of particular relevance E earlier application or patent published on or after the international filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O document referring to an oral disclosure, use, exhibition or other means P document published prior to the international filing date but later than the priority date claimed O document published prior to the international filing date but later than the priority date claimed O the actual completion of the international search O attended to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family O the actual completion of the international search O attended to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document member of the same patent family O the actual completion of the international search O attended to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such document of particular relevance; the claimed involve an inventive step when the document is combined with one or more other such document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document of particular re		 .		=		
ericular relevance E" carlier application or patent published on or after the international filing date but later than the priority date claimed O" document published prior to the international filing date but later than the priority date claimed On the actual completion of the international search Oate of the actual completion of the international search Oate of the actual completion of the ISA/US Mail Stop PCT, Atm. ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acssimile No. (703) 872-9306 Adocument of particular relevance; the claimed invention cannot be considered novel or cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document published prior to the international filing date but later than the priority date claimed Date of mailing of the international search report 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600	action published after the international riting date or priori					
document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention on the relation of particular relevance; the claimed invention on the relation of particular relevance;	A" document of particul	defining the general state of the art which is not considered to be	principle or theor	ry underlying the inver	ation but cited to understand the	
L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means P" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search August 2004 (13.08.2004) Jame and mailing address of the ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Accument which may throw doubts on priority claim(s) or which is cited to establish the priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claime! Evention cannot be considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such document is being obvious to a person skilled in the art document member of the same patent family Date of mailing of the international search report 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600				icular relevance: the c	laimed invention cannot be	
establish the publication date of another citation or other special reason (as specified) O" document referring to an oral disclosure, use, exhibition or other means O" document published prior to the international filing date but later than the priority date claimed Oate of the actual completion of the international search August 2004 (13.08.2004) Iame and mailing address of the ISA/US Mail Stop PCT, Atn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Accident for Patents P.O. Gox 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306	considered novel or cannot be cons				ed to involve an inventive step	
considered to involve an inventive step when the document is combined with one or more other such document is combined with one or more other such document is combined with one or more other such documents, such combination being obvious to a person skilled in the art document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search August 2004 (13.08.2004) Date of mailing of the international search report 21 SEP 2004 Authorized officer Evelyn Huang Authorized of S71) 272-1600 Telephone No. (571) 272-1600		which may throw doubts on priority claim(s) or which is cited to				
document referring to an oral disclosure, use, exhibition or other means P* document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search 3 August 2004 (13.08.2004) Jame and mailing address of the ISA/US Mail Stop PCT, Atn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Accommendate of the means and mailing to the international search report 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600 Telephone No. (571) 272-1600	specified)	as pronouncer can de anomer creation or other special reason (as	"Y" document of parti	icular relevance; the c	laime i revention cannot be	
P" document published prior to the international filing date but later than the priority date claimed Date of the actual completion of the international search 3 August 2004 (13.08.2004) Jame and mailing address of the ISA/US Mail Stop PCT, Atn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Date of mailing of the international search report 21 SEP 2004 Authorized officer Evelyn Huang Felephone No. (571) 272-1600	O" document	referring to an oral disclosure, use, exhibition or other means	combined with or	e or more other such	documents, such combination	
Date of the actual completion of the international search 3 August 2004 (13.08.2004) Iame and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Date of mailing of the international search report 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600						
3 August 2004 (13.08.2004) Iame and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600	priority da	te claimed	"&" document membe	r of the same patent fa	mily	
3 August 2004 (13.08.2004) Iame and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 21 SEP 2004 Authorized officer Evelyn Huang Telephone No. (571) 272-1600	ate of the ac	tual completion of the international search	Date of mailing of the	mtormoti 1		
Authorized officer Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Authorized officer Evelyn Huang Telephone No. (571) 272-1600						
Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 acsimile No. (703) 872-9306 Evelyn Huang Telephone No. (571) 272-1600				r 2004		
acsimile No. (703) 872-9306			Authorized officer	1 0 :		
acsimile No. (703) 872-9306	Com	missioner for Patents	Evelyn Huang	t. Kala	uto for	
acsimile No. (703) 872-9306			Telephone No. (571) 2	72.1600		
			1 eteptione No. (5/1) 2	/2-1000	V	
IN I CALACTER OF COUNTY SHEET (JAHUST / HRI)		/210 (second sheet) (January 2004)				